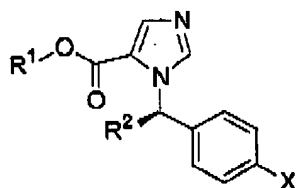


In the Claims:

1. (Cancelled)
2. (Currently Amended) The A compound of ~~claim 1~~, having the formula (IA)

(IA)



wherein

R¹ is linear or branched C₁-C₄ alkyl, optionally substituted with a halogen selected from F, Cl, I or Br;

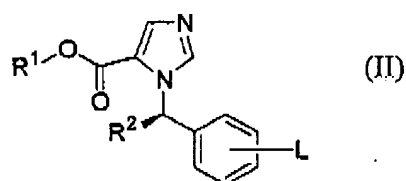
R² denotes an alkyl group containing 1 or 2 carbon atoms; and

X is a halogen selected from the group consisting of I, Br, Cl and F a radioactive halogen selected from the group consisting of ¹²³I, ¹²⁴I, ¹²⁵I, ¹³¹I, ⁷⁶Br, ⁸²Br or ¹⁸F.

3. (Cancelled)
4. (Currently Amended) The compound of claim 1 2 wherein R¹ and R² are each methyl, and X is ~~non-radioactive or radioactive~~ iodine, and wherein the compound is I-metomidate (IMTO).

5. (Currently Amended) The compound of claim 1, wherein R^1 is ethyl, R^2 is methyl and X is ~~non-radioactive or~~ radioactive iodine, wherein the compound is I-iodometomidate (IMTO).

6. (Withdrawn) The compound of the formula (II)



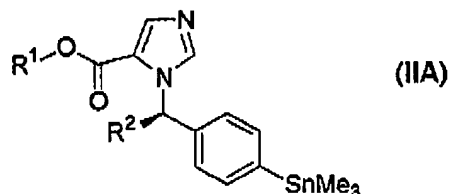
wherein

R^1 is linear or branched C_1 - C_4 alkyl, optionally substituted with a halogen selected from the group consisting of F, Cl, I or Br;

R^2 denotes an alkyl group containing 1 or 2 carbon atoms; and

L represents an alkyl-stannyl group selected from the group consisting of a trimethylstannyl, triethylstannyl, tri-*n*-propylstannyl and tri-*n*-butylstannyl.

7. (Withdrawn) The compound of claim 6, having the general formula (IIA)

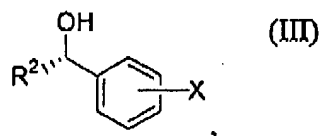


wherein L is a trimethylstannyl group.

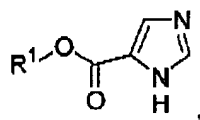
8. (Withdrawn) The compound of claim 6 wherein R^1 and R^2 are each methyl, and L is a trimethylstannyl group.

9. (Withdrawn) A process for preparing the compound of claim 1, the process comprising the steps of:

(a) providing a (S)-secondary alcohol of formula (III)



(b) coupling said (S)-secondary alcohol of formula (III) to an alkyl imidazole-5 [4]-carboxylate of formula (IV)



under conditions effective to achieve the compound of claim 1.

10. (Withdrawn) The process of claim 9, wherein the (S)-secondary alcohol of formula (III) is prepared by the process further comprising the steps of:

- (a) reducing a substituted phenyl methyl ketone having X as either iodine or bromine, to racemic alcohol;
- (b) preparing the chloroacetate of said racemic alcohol; and
- (c) performing a lipase SAM II-catalysed resolution of (S)-alcohol of formula III derived from the (S)-enantiomeric ester.

11. (Withdrawn) A process for preparing the compound of claim 2, the process comprising the steps of

- (a) preparing a compound of formula (II)
- (b) reacting said compound of formula (II) under conditions effective for replacing L with non-radioactive or radioactive halogen to produce a compound of the formula (I) wherein R¹ is linear or branched C1-C4 alkyl, and is optionally substituted with a halogen selected from F, Cl, I, Br; R² denotes an alkyl group containing 1 or 2 carbon atoms; and x is non-radioactive or radioactive halogen.

12. (Withdrawn) The compound of claim 4 having the structure ¹²³I-IMTO, ¹²³I-ETO, ¹²⁵I-IMTO, ¹²⁵I-ETO, ¹³¹I-IMTO, ¹³¹I-ETO, ¹²⁴I-IMTO, ¹²⁴I-ETO, ⁷⁶Br-MTO, ⁷⁶Br-ETO, ⁸²Br-ETO, ¹⁸F-MTO, ¹⁸F-ETO, I-MTO (non-radioactive iodine), preferably ¹²³I-ETO or most preferably ¹³¹I-ETO.

13. (Withdrawn) The compound of claim 1, wherein X is a radioactive halogen, especially bromine.

14. (Currently amended) The compound of claim 1, wherein R1 is ~~non-radioactive or~~ radioactive 2-fluoroethyl, ~~preferably radioactive~~.
15. (Withdrawn) A method for the in vivo detection of receptor positive tissue and tumors of adrenal cortex in persons with adrenal pathology, said method comprising administering the compound of claim 1 to said person with adrenal disease, and wherein a radiotracer is selected from the group consisting of gamma or positron-emitting halogens.
16. (Withdrawn) The method of claim 15, wherein the adrenal-derived tumor is not anatomically confined to the adrenal glands.
17. (Withdrawn) The compound of claim 5 having the structure ^{123}I -IMTO, ^{123}I -ETO, ^{125}I -IMTO, ^{125}I -ETO, ^{131}I -IMTO, ^{131}I -ETO, ^{124}I -IMTO, ^{124}I -ETO, ^{76}Br -MTO, ^{76}Br -ETO, ^{82}Br -ETO, I-MTO (non-radioactive iodine), ^{123}I -ETO or ^{131}I -ETO.
18. (Canceled)